

IN THE CLAIMS

Please amend the claims as follows:

1. (Currently Amended) An image processing apparatus for generating graphics data according to picture description instructions based on original image data of full color, comprising:

a chromatic tester configured to determine whether a pixel of the original image data is chromatic or achromatic;

an obtainer configured to obtain an image property of the pixel;

a color converter configured to convert the ~~original image data pixel~~ into CMYK data for printing according to one of a plurality of predetermined converting condition; conditions; and

a converting condition designator configured to designate ~~a type of the~~ one of the plurality of predetermined converting condition conditions for the pixel determined as achromatic by said chromatic tester ~~according to~~ based on the image property obtained by said obtainer.

2. (Original) The image processing apparatus according to Claim 1, wherein said chromatic tester determines the pixel as achromatic when values of RGB color components are identical to each other.

3. (Original) The image processing apparatus according to Claim 1, wherein said chromatic tester determines the pixel as achromatic when differences in data value among RGB components of the pixel fall within respective predetermined threshold values.

4. (Original) The image processing apparatus according to Claim 1, wherein the predetermined condition used for the pixel determined as achromatic is any one of a K monochrome converting condition using a black color and a normal converting condition using cyan, magenta, yellow, and black colors.

5. (Original) The image forming apparatus according to Claim 1, wherein said obtainer checks pixels in a predetermined area in the original image data to obtain the image property of the pixel.

6. (Original) The image forming apparatus according to Claim 1, wherein the image property of the pixel is either one of a first image property of including any chromatic pixel in the pixels in the predetermined area and a second property of not including any chromatic pixel in the pixels in the predetermined area, and said converting condition designator designates the K monochrome converting condition to the pixel having the first image property.

7. (Original) The image forming apparatus according to Claim 1, wherein the predetermined area comprises a predetermined number of sequential pixels immediately preceding the pixel in a main scanning direction.

8. (Original) The image forming apparatus according to Claim 1, wherein the predetermined area comprises a predetermined number of sequential pixels immediately succeeding the pixel in a main scanning direction.

9. (Original) The image forming apparatus according to Claim 1, wherein the predetermined area comprises a predetermined number of sequential pixels immediately preceding and succeeding the pixel in a main scanning direction.

10. (Original) The image forming apparatus according to Claim 1, wherein the predetermined area is formed with an m-by-n matrix surrounding the pixel, m and n being positive integer values greater than zero.

11. (Currently Amended) An image processing apparatus for generating graphics data according to picture description instructions based on original image data of full color, comprising:

chromatic checking means for checking to determine whether a pixel of the original image data is chromatic or achromatic;

obtaining means for obtaining an image property of the pixel;

color converting means for converting the pixel original image data into CMYK data for printing according to one of a plurality of predetermined converting condition;
conditions; and

converting condition designating means for designating ~~a type of the~~ one of the plurality of predetermined converting condition conditions for the pixel determined as achromatic by said chromatic checking means ~~according to~~ based on the image property obtained by said obtaining means.

12. (Original) The image processing apparatus according to Claim 11, wherein said chromatic checking means determines the pixel as achromatic when values of RGB color components are identical to each other.

13. (Original) The image processing apparatus according to Claim 11, wherein said chromatic checking means determines the pixel as achromatic when differences in data value among RGB components of the pixel fall within respective predetermined threshold values.

14. (Original) The image processing apparatus according to Claim 11, wherein the predetermined condition applied to the pixel determined as achromatic is any one of a K monochrome converting condition using a black color and a normal converting condition using cyan, magenta, yellow, and black colors.

15. (Original) The image forming apparatus according to Claim 11, wherein said obtaining means checks pixels in a predetermined area in the original image data to obtain the image property of the pixel.

16. (Original) The image forming apparatus according to Claim 11, wherein the image property of the pixel is either one of a first image property of including any chromatic pixel in the pixels in the predetermined area and a second property of not including any chromatic pixel in the pixels in the predetermined area, and said converting condition designating means designates the K monochrome converting condition to the pixel having the first image property.

17. (Original) The image forming apparatus according to Claim 11, wherein the predetermined area comprises a predetermined number of sequential pixels immediately preceding the pixel in a main scanning direction.

18. (Original) The image forming apparatus according to Claim 11, wherein in the predetermined area comprises a predetermined number of sequential pixels immediately succeeding the pixel in a main scanning direction.

19. (Original) The image forming apparatus according to Claim 11, wherein the predetermined area comprises a predetermined number of sequential pixels immediately preceding and succeeding the pixel in a main scanning direction.

20. (Original) The image forming apparatus according to Claim 11, wherein the predetermined area is formed with an m-by-n matrix surrounding the pixel, m and n being positive integer values greater than zero.

21. (Currently Amended) A graphics data processing method for generating graphics data according to picture description instructions based on original image data of full color, the graphics data processing method comprising the steps of:

determining whether a pixel of the original image data is chromatic or achromatic;

obtaining an image property of the pixel;

designating ~~a type of a~~ one of a plurality of predetermined converting ~~condition~~ conditions for the pixel determined as achromatic by said determining step ~~according to~~ based on the image property obtained in said obtaining step; and

converting the ~~original image data pixel~~ into CMYK data according to the designated one of the plurality of predetermined converting ~~condition~~ conditions.

22. (Original) The graphics data processing method according to Claim 21, wherein said chromatic checking step determines the pixel as achromatic when values of RGB color components are identical to each other.

23. (Original) The graphics data processing method according to Claim 21, wherein said chromatic checking step determines the pixel as achromatic when differences in data value among RGB components of the pixel fall within respective predetermined threshold values.

24. (Original) The graphics data processing method according to Claim 21, wherein the predetermined condition applied to the pixel determined as achromatic is any one of a K monochrome converting condition using a black color and a normal converting condition using cyan, magenta, yellow, and black colors.

25. (Original) The graphics data processing method according to Claim 21, wherein said obtaining step checks pixels in a predetermined area in the original image data to obtain the image property of the pixel.

26. (Original) The graphics data processing method according to Claim 21, wherein the image property of the pixel is either one of a first image property of including any chromatic pixel in the pixels in the predetermined area and a second property of not including any chromatic pixel in the pixels in the predetermined area, and said designating step designates the K monochrome converting condition to the pixel having the first image property.

27. (Original) The graphics data processing method according to Claim 21, wherein the predetermined area comprises a predetermined number of sequential pixels immediately preceding the pixel in a main scanning direction.

28. (Original) The graphics data processing method according to Claim 21, wherein the predetermined area comprises a predetermined number of sequential pixels immediately succeeding the pixel in a main scanning direction.

29. (Original) The graphics data processing method according to Claim 21, wherein the predetermined area comprises a predetermined number of sequential pixels immediately preceding and succeeding the pixel in a main scanning direction.

30. (Original) The graphics data processing method according to Claim 21, wherein the predetermined area is formed with an m-by-n matrix surrounding the pixel, m and n being positive integer values greater than zero.

31-40. (Canceled)

41. (Original) A computer readable medium storing computer instructions for causing a computer to perform an image processing method, said method comprising:
chromatic checking to determine whether a pixel of the original image data is chromatic or achromatic;
obtaining an image property of the pixel;

designating one of a plurality of a type of a predetermined converting condition
conditions for the pixel determined as achromatic in said chromatic checking step ~~according~~
~~to~~ based on the image property obtained in said obtaining step; and

converting the ~~original image data pixel~~ into CMYK data for printing according to the
designated one of the plurality of predetermined converting condition conditions.

42. (Original) The storage medium according to claim 41, wherein said chromatic checking step determines the pixel as achromatic when values of RGB color components are identical to each other.

43. (Original) The storage medium according to claim 41, wherein said chromatic checking step determines the pixel as achromatic when differences in data value among RGB components of the pixel fall within respective predetermined threshold values.

44. (Original) The storage medium according to claim 41, wherein the predetermined condition applied to the pixel determined as achromatic is any one of a K monochrome converting condition using a black color and a normal converting condition using cyan, magenta, yellow, and black colors.

45. (Original) The storage medium according to claim 41, wherein said obtaining step checks pixels in a predetermined area in the original image data to obtain the image property of the pixel.

46. (Original) The storage medium according to claim 41, wherein the image property of the pixel is either one of a first image property of including any chromatic pixel

in the pixels in the predetermined area and a second property of not including any chromatic pixel in the pixels in the predetermined area, and said designating step designates the K monochrome converting condition to the pixel having the first image property.

47. (Original) The storage medium according to claim 41, wherein the predetermined area comprises a predetermined number of sequential pixels immediately preceding the pixel in a main scanning direction.

48. (Original) The storage medium according to claim 41, wherein the predetermined area comprises a predetermined number of sequential pixels immediately succeeding the pixel in a main scanning direction.

49. (Original) The storage medium according to claim 41, wherein the predetermined area comprises a predetermined number of sequential pixels immediately preceding and succeeding the pixel in a main scanning direction.

50. (Original) The storage medium according to claim 41, wherein the predetermined area is formed with an m-by-n matrix surrounding the pixel, m and n being positive integer values greater than zero.

51. (Currently Amended) A printing apparatus comprising:

a printer engine; and

a printer controller storing a computer program product for carrying out an image processing method, the method comprising the steps of:

chromatic checking to determine whether a pixel of the original image data is chromatic or achromatic;

obtaining an image property of the pixel;

designating ~~a type of a~~ one of a plurality of predetermined converting ~~condition~~ conditions for the pixel determined as achromatic in said chromatic checking step ~~according to~~ based on the image property obtained in said obtaining step; and

converting the ~~original image data pixel~~ into CMYK data for printing according to the designated one of the plurality of predetermined converting ~~condition~~ conditions.

52. (Currently Amended) A hosting apparatus, comprising:

a computer; and

a printer driver installed in said computer and storing a computer program product for carrying out an image processing method, the method comprising the steps of:

chromatic checking to determine whether a pixel of the original image data is chromatic or achromatic;

obtaining an image property of the pixel;

designating ~~a type of a~~ one of a plurality of predetermined converting ~~condition~~ conditions for the pixel determined as achromatic in said chromatic checking step ~~according to~~ based on the image property obtained in said obtaining step; and

converting the ~~original image data pixel~~ into CMYK data for printing according to the designated one of the plurality of predetermined converting ~~condition~~ conditions.

53. (New) The image processing apparatus of Claim 1, wherein the obtainer is configured to obtain the image property of the pixel by determining whether the pixel is part of a photographic image.